BRUHAT BENGALURU MAHANAGARA PALIKE

Name of Work :- Estimate for Drilling of Borewell and Providing Pump motor and other works in Abbigere, Chikkasandra, Shettyhalli, Medarahalli and K.G.Halli area in Ward No.12, Shettyhalli sub Division.

Job No: 012-19-000012 — **Estimate Cost Rs. 20000000.00**

SL NO	DESCRIPTION OF WORK	UNIT	NO		L	B	D	QTY	RATE	AMOUNT
1	2	3	4	5	6	7	8	9	10	11
1	Geophysical investigation of site for sinking bore well for supply drinking water to the habitation either through the Hand Pump. MWS or PWSS by vertical electrical sounding by adopting Venner or schlumberger's method, including reconnaissance survey of geological formation, Geophysical investigation of existing ground infecundity its quality & acceptability of the users indicating the location of site, recommended depth of casing pipe required to seal the top in consolidated formation of proper scatting of casing pipe ,depth of drilling required to cover full depth of auquifer propopsed to be tapped Proboabale yield and other information required including transporetation technical personal and labour etc **(P.NO-47, I.NO-9.4, PRED 12-13 SR)**									
		Each	16	1				16	1938.46	31015.36
	Basic Rate	1882.00								
	add aw @3%	56.46								
		1938.46								
2	Sinking of borewell of 165mm dia clear using super fast hydraulic rig of capacity 250 PSIG and above 900 CMF and above in all strata including over burden upto 20m, fixing of casing pipes, collars and cap with necessary welding, cutting and treading including transportation of rig and supporting vehicles, screw charges and cost of consumables, etc.. complete including yield testing at the final depth with a minimum working of compressor for one hour.(excluding cost of casing pipes, collars, caps etc.,) **(P.NO-47, I.NO-9.1, PRED 12-13 SR)**									
	a) 0.00 to 50.00 mts	Rmt	16	1	50.00			800.00	315.18	252144.00
	b) 50.00 to 100.00 mts	Rmt	16	1	50.00			800.00	412.00	329600.00
	c) 100.00 to 150.00 mts	Rmt	16	1	50.00			800.00	458.00	366400.00
	d) 150.00 to 200.00 mts	Rmt	16	1	50.00			800.00	484.10	387280.00
	e) 200.00 to 250.00 mts	Rmt	16	1	50.00			800.00	560.32	448256.00
	f) 250.00 to 300.00 mts	Rmt	16	1	50.00			800.00	600.49	480392.00
	g) 300.00 to 350.00 mts	Rmt	16	1	50.00			800.00	640.66	512528.00
	h) 350.00 mts and above	Rmt	16	1	25.00			400.00	677.74	271096.00
3	Supply of ISI mark 175 mm nominal bore,plain end steel casing pipe grade of steel fee 410 of wali thickness 5.4mm thick confirming to IS 4270:2001 and latest amendments, eletric resistence welded steel tube material and confirming to IS 1387/1993 and manufactured by basic open hearth electric or basic oxygen process in random length of 5 to 7 mts. Both ends threaded confirming to IS 554/1985, one end fixed with socket conforming to IS 4270:2001 and the other end with screwed pipes. All pipes shall be reasonably free from defects. The tubes shall be reasonably straight should be with ISI marking, weighing 25.10Kg/mtr (inclusive of all taxes and duties). Prices including collar medium duty **(P.NO-III, I.NO-84, PRED 12-13 SR)**									
	a) Casing pipe	Rmt	16	1	75.00			1200.00	1325.00	1590000.00
4	Providing 250mm dia PVC Pipe 6kg/cm BWSSB SR 2014-15, P-53, I-1(ii).									

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		Rmt	16	30				480.00	1100.00	528000.00
5	Supply of 175mm MS Cap. (RDED SR 2010-11 P-II, I.54)									
		Each	16	1				16.00	100.00	1600.00
6	Supply of 175mm MS Collar. (RDED SR 2010-11 P-II, I.55)									
		Each	16	8				128.00	150.00	19200.00
7	Supply & delivery at site brand **new texmo/Innoval/lubl/sabar /Atalanta/calamal/** waterman/Radha make **suitable HP deep well submercible pumpset** suitable for vertical installation in 150 dia borewells compressing of single stage or multistage CF pump close coupled by means of stainless steel coupling to suitable HP suitable speed totally enclosed and filled with pure drinking water squirrel cagesubmercible induction motor suitable for operation of 3Ph, 50Hz.380/440 volts AC supply fitted with required accessories such as suction, casing, suction strainers, sand guard. Non return valve etc Complete the pump and motor shall from an integral unit with all the required fittings 15 HP 25 stage **(P.NO-XLII I.NO-30, PWD SR-2018-19)**									
	15HP 30stage Sub mersible pump set									
		No	16	1				16.00		
	For replacing damaged pumps	No	5	1				5.00		
	Basic Rate	63498.00						**21.00**	67307.88	1413465.48
	6% area weightage	3809.88								
	Total	**67307.88**								
8	Supplying and drawing 3 core flat PVC sheathed submersible pump cable manufactured with electrolytic grade copper conductor cofirming to table 3 class 5 to IS 8130-1984 and virgin grade PVC insulation and powder coating extruded PVC sheathed suitable for working voltage upto 1100 volts with specified IS 694:1990 and confirming to the attwached GTP of Group A 3C x 6.0 Sq.mm **(PWD Ele SR 2014-15, P-12 It.2.10)**									
		Mtr	16	2	320.00			10240.00		
	Repair	Mtr	5	2	280.00			2800.00		
								13040.00	188.70	**2460648.00**
9	**Labour charges for erection of new** /repaired submersible pumpset along with GI pipes (32/50mm) cable (new submersible pumpset if required will be supplied by the department free of cost and released pump set should be handed over to department) including transportation (each length = 6.00m) **(P.No - 564, I.No - 3, BWSSB SR 13-14)**									
		Per length	16	50				800.00		
			5	45				225.00		
	Basic Rate	88.00						**1025.00**	90.64	**92906.00**
	3% area weightage	2.64								
	Total	**90.64**								
10	Supplying & delivery of brand new best make non return valve of size 50mm as per IS: 778/84 with latest amendments with ISI mark (50mm Gate wheel Valve. **(PWD SR-2018-19, P XLVII Sl.no, 16)**									
		Nos	16	1				16.00		
		No	5	1				5.00		
	Basic Rate	1800.00						21.00	1908.00	40068.00
	6% area weightage	108.00								
	Total	**1908.00**								

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11	**Supplying and fixing 50mm GI Union.(PWD SR 2015-16, P-XXXVII)**										
		Nos	16	2				32.00		
		Nos	5	2				10.00		
								42.00	223.70	9395.00
12	**Supplying and fixing 50mm GI Elbow. (PWD SR 2015-16, P-XXXVII)**										
		Nos	16	1				16.00		
		Nos	5	1				5.00		
								21.00	122.00	2562.00
13	Supplying and fixing 50mm GI Nipple. (PWD SR 2015-16, P-XXXVII)										
		Nos	16	2				32.00		
		Nos	5	2				10.00		
								42.00	104.30	4380.00
14	Supplying and delivery at site brand new star / Essen / Lotus / Sun shines / Adarsh / GK Controls best indigenous make **combined energy meter cum control panel board unit of size 1200x600x350** mm minimum mechanically strong vermin and water proof. The unit shall have two detachable doors suitable for operation on 3ph, 50 Hz, 380/440 volts, AC supply with spring loaded latch, locking device with a key ribs should be provided inside the door canopy apron and louvers ventilators shall be provided the combined energy meter cum control panel board unit suitable for operation on 3ph, 50Hz, 380/440 volts AC supply shall be consists etc, complete the panel board shall be consists etc., complete the panel board shall be fabricated on single unit in the above components panel board for suitable pumpset with Star Delta Starter out door type 15 HP to 25 Hp.										
		Nos	16					16.00		
	for replacing old panel boards		5					5.00		
								21.00	10000.00	210000.00
15	**Providing, laying & jointing GI pipes** confirming to IS specification of approved make with fittings such as collars bends elbows tees nipples plugs with cuts threads using white lead & threads for joints wherever necessary as per direction including all lead & lift etc,. complete 'A' grade(excluding cost of fittings)b**50mm dia GI pipe (PWD SR-2018-19, P.No. XLVII Sl No 1)**										
		Rmt	16	300.00				4800.00		
			5	270.00				1350 00		
								6150.00	439.90	**2705385.00**
	Basic Rate	415.00								
	6% area weightage	24.90								
	Total	**439.90**								
16	Providing **50 mm dia GI collars** (PWD SR-2018-19, P.No. XLVII Sl No 2)										
		Each	15	50				750		
	Repair		5	50				250		
								1000	190.80	**190800.00**
	Basic Rate	180.00								
	6% area weightage	10.80								
	Total	**190.80**								
17	**Erection of combined panel board** and meter unit with necessary materials & labour including providing cement concrete foundation bed concrete door type etc complete. (CE (m) BWSSB, Letter No.BWSSB/CE (M)/ACE(M)-2/TA-8/9194/2008-2009 dated 21/1/09.										
		Nos	16	1				16.00		

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			5	1				5.00		
								21.00	425.00	8925.00
18	Supplying of TPST with rewireable porcelain channels in SM encloser Made out of 14 SWG Powder coted paint of approved colour 32 amps Group A (PWD Electrical SR 2014-15, P-51, It-6.5.1)									
		Nos	16	1				16.00	1868.00	29888.00
19	Supplying and fixing 20"x20"x2.5" polished wood board made up not less than 15cm thick plank with front plank one end provided for holding at other end fixing the same of the valve using through bolts and nuts [PWD Electrical SR 2014-15, P-51, It-6.6.6)									
		Nos	16	1				**16.00**	302.00	4832.00
20	Supplying & Fixing LED type panel board indicating lamp with required colour suitable for 220 V AC 50 HZ 12/24 V DC [PWD electrical SR 2010-11, P-40, It-34(b)]									
		Nos	16	1				16.00		
	Repair		5	1				5.00		
								21.00	430.00	9030.00
21	Wiring for lighting/ power circuit using one of FRLS PVC insulated 1100V grade multistrand copper conductor single core wire in open or concealed system of wiring as per IS 694:1990 & conforming to the attached GTP of Group A. 4 Sqmm. (PWD Ele SR 2010-11, P-9, It-20.2(d)									
		Mts	16	35				**560.00**	42.10	23576.00
22	Fixing a shunt capacitor upto 5 KVAR capacity with necessary clamps, bolts and nuts on existing wooden or metal board including banking of more than one capacitor. (PWD Ele SR 2010-11, P-30, It-15(a)									
		Each	16	3				**48.00**	120.00	5760.00
23	Supplying and fixing regular MCB distribution boards on wall / wood board / flush mounting using required clamps, bolts, nuts with provision for fixing suitable type capacity MCB's single phase/3 Phase/ single door with powder coated painting. Made out of 14 SWG M.S enclosure. 12 Way SP & N (PWD Ele SR 2014-15, P-54, It-6.16.5)									
		Nos	16	1				**16.00**	1047.00	16752.00
24	Supplying and fixing wiring, earth electrode for grounding conduits IC Cutouts and other equipments on the meter board using 40mm dia 2.90mm thick GI Pipe 2.5 Mtr long buried in a pit..... The pit should be filled with equal proportion of salt and charcoal 150mm alround the pipe to complete depth. The connections from the pipe to the conduit etc, is to be established though GI Wire of size as per ISI Specification 7.3.3 of IS 732 using 12mm dia bolts, nuts, washers and checknuts etc, the pipe shall have 16 through holes of 122 mm dia. (PWD Ele SR 2014-15, P-62, It-7.1)									
		Nos	16	1				**16.00**	2727.00	43632.00
25	Supplying Fully automatic Star delta starter unit push button type with suitable wires 3 Contractors and adjustable thermal timer mounted on a common base plate held in steel enclosure for use on 400 /440 volts phase and wired after fixing to the existing wooden board for motor Group A ,II above 15 HP up to 25 HP (PWD Ele SR 2014-15, P-51, It- 6.2.1)									
		Each	16	1				16.00		
		Each	5	1				5.00		
								21.00	8273.00	173733.00

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26	Supplying and fixing Class-A (Medium duty) -GI pipe wall thickness not less than 3 25mm on pole/wall/Drain crossing with necessary clamping arrangements for UG Cable of 1.1 KV class 65mm (PWD Ele SR 2014-15, P-68, It-7.12.3)										
		Mtr	16	1	6.00			96.00		
								96.00	585.00	56160.00
27	Supplying laying of 1.1 KV class L.T.U.G Cable having aluminium conductor PVC insulated extruded inner shethed galvanised steel strip (except 2C x 10 Sq.mm wire armoured) confirming to IS-3975:1990 (No. of Strip indicated in GTP) & extruded PVC outer sheathed armoured cable with speicified IS-1554, Part-1:1988 & confirming to the attached GTP of Group A 3.5 core to 25Sqmm (PWD Ele SR 2014-15, P.No.62, It- 7.4.5)										
		Mtr	16	1	35.00			560.00		
								560.00	165.60	92736.00
28	Labour charges for Laying of 1.1 KV Class UG cable 6 Sqmm to 16 sqmm (PWD Ele SR 2014-15, P-68, It-7.8.1)										
		Mts	16	1	40.00			**640.00**	10.80	6912.00
29	Digging of trench of 0.6m deep x 0.50 mtr wide refilling the trench to the required ground level and consolidating in Hard soil etc., complete. complete as per specifications and direction of the Engineer-in-Charge (PWD Electrical SR 2014-15, P-68, It-7.9.2)										
		Mtr	16	1	40.00			**640.00**	106.00	67840.00
30	Supplying and fixing LT cast iron pot heads suitable for 1.1 KV class UG cable filled with necessary bitumen / insulating compound complete. With terminals, clamps, bolts nuts and washers etc.complete for 16 Sqmm as per specification (PWD Ele SR 2014-15, P-69, It-7.13.2)										
		Each	16	1				**16.00**	280.00	4480.00
31	Supplying and fixing Porcelain fuse channel with cut out on the existing wooden block & wiring complete 32 amps (PWD Ele SR 2014-15, P-52, It-6.7)										
		Nos	16	3				**48.00**	180.00	8640.00
32	KSRB 13-6.3-7 : Providing and fixing in position brass gate valve with C.I wheel of approved quality (screwed end) 65mm nominal bore including cost of all materials, labour and HOM of equipments with all leads complete as per specifications/ Specifications No. KBS **13.2.5 / 13.3, P-94, I-13.38 PWD SR 2016-17.)**										
		Nos	16	5				80.00		
	For replacing damaged valves		5	2				10.00		
								90.00	2229.18	200626.20
	Basic Rate	2103.00								
	A.W.@ 6%	126.18								
	Total	2229.18								
33	Cutting the road surface for pipe line trenches and disposing of the excavated stuff as directed including barricading danger lighting etc, in Asphalt road surface (Page 264, Item 37.38)										
	New Pipe line	Cum	16	1	300.00	0.45	0.20	432.00		
						Total		**432.00**	360.40	155692.00
	Basic Rate	340.00								
	A.W.@ 6%	20.4								
	Total	360.40								
34	**Earthwork excavation for** foundation of buildings, **water supply,** sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in hard soil not exceeding 1.5 m in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50m after breaking of clods complete as per specifications **(P.NO - 5, I.NO - 2.4, PWD SR-2018-19)**										

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	New Pipe line	Cum	16	1	545.00	0.60	0.70	3662.40		
	for repair		5	1	235.00	0.60	0.75	528.75		
						Total		**4191.15**	315.98	**1324319.00**
	Basic Rate	299.00								
	6% area weightage	16.98								
	Total	**315.98**								
35	**Providing and installing at site of work PVC Pipes** including cost of pipes and specials and labour, including lowering into trenches, laying true to line, level and perfect linking at joints leak proof including jointing of approved type with all labour and lift charges, handling charges including encasing the pipe alround to a depth not less than 15cms with gravel or selected earth available from the excavation etc., complete PVC Pipes of 10kg/cm2 **(P.NO - 115, I.NO - 3.4.3, PRED SR-2012-13)**									
	New Pipe line	Mts	16	1	545.00			8720.00		
	for repair		5	1	235.00			1175.00		
	Basic Rate	**168.00**					Total	**9895.00**	173.04	1712230.00
	area weightage@ 3%	5.04								
	Total	173.04								
36	KSRB13-3.6 : Providing and fixing in trenches galvanised / mild steel tubes (medium grade) 50mm dia nominal bore with all fittings (earth work in trenches to be measured and paid for separately) including cost of all materials, labour charges, HOM of equipments and testing complete as per specifications. Specification No.KBS 13.2.14 / 13.6 **(P 92 It 13.15)**									
	for road crossing	mtr	14	25.00				350.00		
								350.00	411.28	143948.00
	Basic Rate	388.00								
	6% area weightage	23.28								
	Total	**411.28**								
37	**Refilling available earth around pipe lines,** cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m and lift upto 1.5m including cost of all labour complete as per specifications **(P 6, It - 2.11, PWD SR-2018-19)**									
	75% Qty vide item No 35	**Cum**						**3143.36**	128.26	403167.00
	Basic Rate	121.00								
	6% area weightage	7.26								
	Total	**128.26**								
38	Conveying the excavated earth silt, debris and over burden earth etc., to lead of 10kms distance by using private vehicle this includes the cost of loading and unloading charges etc., complete as per the direction of Engineer-in-charge of the work (PWD SR 2018-19, P-136, It.17.1)									
		cum	Qty=25% of It no 25					1047.79		
	Basic Rate	57.00						**1047.79**	101.93	106800.00
	lead for 10 km=10*1.28*2.0	25.60								
	Sub total	96.16								
	A.W.@ 6%	5.77								
	Total	**101.93**								
39	**KPTCL Deposit charges & Purchase of current meter complete.**									
		Nos	16	1				16.00	15000.00	240000.00

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								Sub Total	16946799.00
40	Add GST @ 12%								2033616.00
41	Add TP @ 5%								847340.00
42	PMC Charges @ 1%								169468.00
43	Miscellaneous & Rounding off								2777.00
								Total Rs.	20000000.00
	(Rupees Two Hundred Lakhs Only)								

CERTIFICATE:

1. The work spot has been inspected and found to be necessary
2. The work spot comes under BBMP Limits
3. The provisions made in the estimate are necessary and minimum
4. The estimate is based on RDED SR: 2012-13, PW,P & IWTD B'luru SR 2018-19 & Ele SR:2014-15
5. The work is not taken any Head of Account

Assistant Engineer
Ward No.12

Assistant Executive Engineer
Shettyhalli Sub Division
Bruhat Bengaluru Mahanagara Palike

Executive Engineer
Dasarahalli Division
Bruhat Bengaluru Mahanagara Palike

ನಂ. EE/DD/AS/163/19-20 ದಿನಾಂಕ : 09/07/19
ರೂ. Rs 200.00 Lakhs
Rupees Two Hundred Lakhs only
ಅಂದಾಜು ಪಟ್ಟಿಗೆ ಆಡಳಿತಾತ್ಮಕ ಮಂಜೂರಾತಿ ನೀಡಿದೆ
ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ದಾಸರಹಳ್ಳಿ ವಿಭಾಗ

ನಂ. CE/DZ/TS/103/19-20 ದಿನಾಂಕ : 28/01/2019
ರೂ. 200.00 Lakhs/- (Rupees Two hundred lakhs only)
ಗಳ ಅಂದಾಜು ಪಟ್ಟಿಗೆ ತಾಂತ್ರಿಕ ಮಂಜೂರಾತಿ ನೀಡಿದೆ.
ತಾಂತ್ರಿಕ ಸಹಾಯಕರು
ಮುಖ್ಯ ಅಭಿಯಂತರರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ.
ದಾಸರಹಳ್ಳಿ ವಲಯ, ಬೆಂಗಳೂರು.

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